

**REMARKS:**

Claims 1-18 are presented for consideration.

The claims have been amended to correct their form under 35 U.S.C. 112 as required by the Examiner. The claims are now believed to be in proper form and these amendments were made to satisfy formal requirements only and for no purpose that would limit the applicability of the doctrine of equivalents or other judicially created doctrines for claim interpretation.

In greater detail, the redundant "a said" has been changed in claims 6-11 to simply - - said - - and in claim 14 the objectionable language has been cancelled.

Although the Examiner has raised certain objections to claim 18, it is believed that these objections are shared by claim 1 as well, so that both claims 1 and 18 have been amended to eliminate the objectionable phrase "or the like" and to better express the simple "means" as the means-plus-function phrase - - means for holding the material piece (10) together - - in claim 1 or in claim 18, - - means for holding the pipe piece together - - .

A structure which provides this means-plus-function element is disclosed for example at page 9 of the specification, lines 19 and 20, where the means shown at 11 in Figs. 2 and 3 are exemplified as a breakable ribbon. As clearly shown in Fig. 5, by practicing the invention the ribbon 11 is broken during one step of the method. The means defined in claims 1 and 18 may also be any equivalent to the breakable ribbon as is proper for means-plus-function language for the claims.

The Examiner has rejected claims 1-10 and 18 as being obvious under 35 U.S.C. 103 from a combination of the Netherlands Patent NL8,204,847 hereafter referred to as

NL'847, in view of U.S. Patent 5,186,215 to Gilleland.

NL'847 is not at all concerned with reconditioning of pipes having one or more substantial hole through the wall thereof, but only an improvement of the internal walls of pipes. In the method according to NL'847 a layer of any liquid or floating material is firstly sprayed on the internal wall of the pipe, and a material piece 16 is then applied thereon. This material piece is designed as a permeable net arranged for armouring the wall. An additional layer is then sprayed onto the material piece 16 for filling out the space between the meshes of the material piece 16 and for covering this piece.

Thus, the differences between this method and the method according to the invention are substantial.

The most important differences are that it is not any question about reconditioning of pipes having one or several substantial holes through the pipe wall and primarily that no pipe piece or the like intended to form an auxiliary wall retaining the material sprayed within the pipe when the coating material is sprayed onto the inner wall of the pipe where the hole is located, is used. These differences are so great that it is not realistic to find it obvious to a person with ordinary skill in the art to arrive to the present invention by combining features from the method of NL'847 and these according to Gilleland.

Furthermore, certain features of vital importance for the invention are not present in either reference, such as the presence of a pipe piece having no ability to seal said hole alone, but which when spraying a coating material onto the internal wall of the pipe forms an auxiliary wall over the hole retaining the material sprayed within the pipe.

Any member adapted to be used for forming an auxiliary wall of this type as defined in independent claim 18 is also not obvious to a person with ordinary skill in the art.

Turning now to Gilleland, this reference teaches a thin wall pipe split longitudinally and then rolled on itself and held by a plastic wrap. There is no spraying of coating material inside the rolled pipe to rupture the wrapping. Gilleland relies on an accurate mating of the beveled edges of the inner tube as shown in Fig. 6 and an outer layer of adhesive initially held in rupturable packets on the outer surface of the rolled tube. It is not seen how the skilled artisan would combine these very different features with NL'847, which also does not show the inner spring of coated material to rupture the held together pipe piece, so that it is not seen how a combination of these references would reach claims 1 and 18 in any obvious manner.

As noted above the dependent claims are believed to distinguish the invention even further from these references, so that claims 1-10 and 18 are believed to be patentable over the combination of NL'847 and Gilleland.

The Examiner has also rejected claim 11 as being obvious from a combination of NL'847 taken in view of Gilleland and the Swedish reference to Kohichiro (referred to here as SE'950). This combination is believed clearly insufficient to render claim 11 obvious, since two of the references are actually inconsistent with each other. SE'950 teaches the spacing away of the edges of the slit pipe piece, whereas Gilleland requires that the edges closely mesh and are in fact adhesively connected to each other as shown in Fig. 6 of the reference. Which of these alternatives is obvious for the skilled artisan to select without having first read the present application and claim 11? This is believed to clearly demonstrate the unobviousness of this combination to reach claim 11, so that claim 11 is also believed to be clearly patentable and in condition for allowance.

The Examiner has also rejected claim 12 as obvious from a combination of NL'847,

Gilleland, SE'950 and a further Swedish reference to Jansson, which is referred here as SE'357. In claim 12, breakable ribbons are provided specifically as the means for holding the pipe piece together and SE'357 does disclose a band. It is not seen where the band is breakable or should be broken, nor does the addition of this reference address the conflicts among the three primary references. Accordingly, claim 12 is believed patentable over this combination of four references and, also, in condition for allowance.

The Examiner has also rejected claims 13-17 as obvious from a combination of NL'847, Gilleland, SE'950, taken further in view of the further Swedish reference SE'663 to Edstrom. Edstrom appears to disclose the prior art of Fig. 1 already disclosed by the present application and, in fact, uses no inner split tube piece which exists at all, let alone one which is held by a means for holding the piece together, those means being ruptured by sprung internal coated material. Claims 13-17 are clearly unobvious over this combination of references and also in condition for allowance.

By this amendment, thus, the application and claims are believed to be in condition for allowance and, favorable action is respectfully requested.

Respectfully submitted,



Peter C. Michalos  
Reg. No. 28,643  
Attorney for Applicants  
(845) 359-7700

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**NOTARO & MICHALOS P.C.**  
100 Dutch Hill Road, Suite 110  
Orangeburg, New York 10962-2100

**Customer No. 21706**